

IN THE CLAIMS

1. (Currently Amended) An apparatus comprising:
a vent hood, including an exit flue duct, the vent hood sized and shaped to ~~fit~~ retrofit snugly about at least one first radiant heater producing radiant heat, the vent hood sized and shaped to receive or collect hot gas from near the radiant heater and to guide the received hot gas within the vent hood toward the exit flue duct, the vent hood including means for controlling a temperature of the at least one first radiant heater to prevent the at least one first radiant heater from overheating when the vent hood is retrofit about the at least one first radiant heater.
2. (Original) The apparatus of claim 1, in which the vent hood is sized and shaped to leave a top portion of the first radiant heater at least partially exposed.
3. (Original) The apparatus of claim 1, in which the vent hood includes at least one louver that permits cooling air to enter the vent hood without permitting substantially any of the hot gas within the vent hood to escape through the at least one louver.
4. (Original) The apparatus of claim 1, in which the vent hood is sized and shaped to be installed by dropping it over or about the first radiant heater when the first radiant heater is hung from a ceiling.
5. (Original) The apparatus of claim 1, in which the vent hood includes inclined side panels configured to be positioned on opposing sides of the first radiant heater in close proximity to the first radiant heater.
6. (Original) The apparatus of claim 2, further including a manifold configured to receive hot gasses from near the first radiant heater, and in which the hot gas is guided by the inclined side panels toward the manifold.

7. (Original) The apparatus of claim 1, further including the first radiant heater.
8. (Original) The apparatus of claim 7, in which the first radiant heater is a fuel-powered radiant heater that produces a combustion byproduct.
9. (Original) The apparatus of claim 7, in which the first radiant heater is an electric-powered radiant heater that results in hot air convection.
10. (Original) The apparatus of claim 7, further including at least one second radiant heater that receives and is heated by the hot gas and that radiates additional heat.
11. (Original) The apparatus of claim 10, in which the second radiant heater includes a tube-shaped radiant element.
12. (Original) The apparatus of claim 11, in which the second radiant heater includes a backside reflector near the tube-shaped radiant element.
13. (Original) The apparatus of claim 11, in which the tube shaped element is arranged in a spiral about the first radiant heater.
14. (Original) The apparatus of claim 1, further including a heat exchanger to extract heat from the hot gas.
15. (Original) The apparatus of claim 1, further including a vacuum pump that is operatively coupled to the exit flue duct to help pull gas through the exit flue duct.
16. (Original) The apparatus of claim 1, further including an intake air duct, at least a portion of which is positioned to receive heat from the hot gas and to pre-heat intake air delivered to a plenum chamber.

17. (Original) The apparatus of claim 16, in which the portion of the intake air duct is located in or near the vent hood.
18. (Original) The apparatus of claim 16, in which the portion of the intake air duct is located in or near the exhaust duct.
19. (Currently Amended) A method comprising:
producing radiant heat, in which the producing radiant heat also results in hot gasses near a first radiant energy source;
retrofitting a collection structure to fit snugly about the first radiant energy source;
collecting the hot gasses using a collection structure; [and]
controlling a temperature of the at least one first radiant energy source to prevent the at least one first radiant energy source from overheating when the collection structure is retrofit about the at least one first radiant heater; and
guiding the collected hot gasses toward an exhaust duct.
20. (Original) The method of claim 19, further including introducing cooling air into the collection structure without permitting the hot gasses to escape the collection structure.
21. (Original) The method of claim 19, further including:
heating a first radiant energy source using the hot gasses; and
producing additional radiant heat using the second radiant energy source.
22. (Original) The method of claim 19, further including extracting heat from the hot gasses.
23. (Original) The method of claim 22, further including using the extracted heat to pre-heat intake air to a combustion source.

24 – 48 (Cancelled).

49. (New) The apparatus of claim 1, in which the vent hood includes at least one second radiant heater that receives and is heated by the hot gas produced by the at least one first radiant heater, and the at least one second radiant heater radiating additional heat, the at least one second radiant heater including a cascade of hot gas collection stages, each stage being thermally insulated or thermally isolated from the other stages to allow different stages to operate at different temperatures.

50. (New) The apparatus of claim 1, in which the vent hood includes at least one second radiant heater that receives and is heated by the hot gas produced by the at least one first radiant heater, and further including a reflector separating and reflecting the radiant heat produced by the first and second radiant heaters.

51. (New) An apparatus comprising:

means for producing radiant heat, in which the producing radiant heat also results in hot gasses near a first radiant energy source;

collection means for fitting snugly about the first radiant energy source and collecting the hot gasses;

means for controlling a temperature of the at least one first radiant energy source to prevent the at least one first radiant energy source from overheating when the collection means is retrofit about the at least one first radiant heater; and

means for guiding the collected hot gasses toward an exhaust duct.